GenCore version 4.5

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OM nucleic - nucleic search, using sw model

Run on   April 24, 2002, 07:14:46. Search time: 250.00 seconds
(without alignments)
2112.599 Million cell updates/sec

Title: US-09-525-998A-11
Perfect score: 600
Sequence: 1 atggcctctgacctgc.............ctgaggactcaagcacaca 600

Scoring table: IDENTITY_NUC
Gapop 10.0, Gapext 1.0

Searched: 910621 seqs, 428642619 residues

Total number of hits satisfying chosen parameters: 1861242

Minimum DB seq length: 6
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : N.Geneseq_1101:*
    1: /SIDS2/gcqdata/a/geneseq/geneseqn/NA1980.DAT:*
    2: /SIDS2/gcqdata/a/geneseq/geneseqn/NA1981.DAT:*
    3: /SIDS2/gcqdata/a/geneseq/geneseqn/NA1982.DAT:*
    4: /SIDS2/gcqdata/a/geneseq/geneseqn/NA1983.DAT:*
    5: /SIDS2/gcqdata/a/geneseq/geneseqn/NA1984.DAT:*
    6: /SIDS2/gcqdata/a/geneseq/geneseqn/NA1985.DAT:*
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   21: /SIDS2/gcqdata/a/geneseq/geneseqn/NA2000.DAT:*
   22: /SIDS2/gcqdata/a/geneseq/geneseqn/NA2001.DAT:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	DB Match	Length	DB	ID	Description
1	557	92.8		1994	11	AAQ04292	Plasmid Tumour Nec
2	555.4	92.6		1968	14	AAV04992	Lambda-derived TNF
3	555.4	92.6		1968	21	AAA95105	Human TNFR1 coding
4	555.4	92.6		2062	13	AAQ20973	TNF alpha binding
5	555.4	92.6		2062	13	AAQ24440	Encodes TNF alpha
6	555.4	92.6		2088	13	AAQ10883	30kD TNF inhibitor
7	555.4	92.6		2088	22	AAC83946	Human 30 kDa TNF i
8	555.4	92.6		2111	12	AAQ10955	Encodes human 55kD
9	555.4	92.6		2111	23	AAX95276	Human tumour necro
10	555.4	92.6		2161	21	AAZ48475	Human tumour necro
11	555.4	92.6		2175	16	AAQ04913	p55 TNF F gene H

(right column, partially legible)

			Description
12	555.4	92.6	6889	17	AAT15931	TNFR/intron (WTras
13	555.4	92.6	6926	18	AAV04431	Vector pcDNA3-IgG1
14	553.8	92.8	2174	12	AAQ12215	IgG1 TNF recepto
15	552.2	92.8	2174	14	AAQ48876	p55 tumour necrosi
16	550.6	91.8	2141	11	AAQ06285	Human humor Necro
17	520.8	86.8	608	13	AAQ24441	cDNA for TNF(20-19
18	516.4	86.1	1301	18	AAT34022	cDNA for TNF(20-19
19	514	84.7	1472		AAX9...	cl lambda hoffe
20	509.4	84.2	1147	19	AAT19921	cl lambda for TNF(20-19
21	483	80.5	483	19	AAV41548	Human soluble tumo
22	483	80.5	483	19	AAV19801	Soluble tumour nec
23	483	80.5	483	20	AAV01732	Tumour necrosis an
24	483	80.5	483	22	AAT89945	Human 30 kDa TNF i
25	427.8	71.3	1949	18	AAT34007	cDNA for TNF(20-19
26	427.8	71.3	1292	18	AAT34008	Encodes truncated
27	425.4	70.9	504	13	AAQ24445	Encodes truncated
28	417.4	70.5	1472	21	AAT54054	MalE fusion plasmi
29	357.2	71.5	474	21	AAQ24442	Encodes truncated
30	329	57.6	2173	21	AAV05284	Human Necrosi
31	312.2	52.0	339	19	AAV19804	Truncated sTNFR, s
32	308		333	19	AAV19805	Truncated sTNFR, s
33	304.2	50.7	432	19	AAV19803	Truncated sTNFR, s
34	303.8	50.6	5870	21	AAA15844	Nucleotide sequenc
35	300.2	50.0	477	21	AAQ24444	Encodes truncated
36	294.6	49.1	315	19	AAV19806	Truncated sTNFR, s
37	288	48.0	1497	21	AAZ50194	MalE fusion plasmi
38	273.8	45.6	294	21	AAV19808	Truncated sTNFR, s
39	264.6	44.1	285	19	AAV19807	Truncated sTNFR, s
40	254.6	42.1	1151	21	AAZ50195	MalE fusion plasmi
41	234.8	39.1	462	23	AAQ24443	Encodes truncated
42	152.4	25.4	1255	21	AAA95103	Partial human TNFR
43	152.4	25.4	1255	21	AAA95104	Partial sequence o
44	142.4	23.7	1027	22	AAC83944	Genomic clone for
45	141	23.4	1255	21	AAA95104	Partial human TNFR

ALIGNMENTS

RESULT 1
AAQ04292
ID   AAQ04292 standard; DNA: 1994 BP.
XX
AC   AAQ04292;
XX
DT   29-JAN-1991 (FIRST ENTRY)
XX
DE   Plasmid Tumour Necrosis Factor binding protein DNA insert.
XX
KW   /note= s
FW   TNF-bind; ss.
XX
OS   Homo sapiens.
XX
FH   Key   Location/Qualifiers
FT   CDS   214..1725
FT   /nid= s
FT   /product="TNF-BP
XX
PN   EP393438-A.
XX
PD   24-OCT-1990.
XX
PF   06-APR-1990; 90EP 0106624.
XX
PR   23-JUN-1989; 89DE 3920204.
PR   23-APR-1989; 89DE 3920201.
XX
PA   (HOEB) BOEHRINGER INGELHEIM INT.
XX
PI   Hauptmann R, Himmler A, Maurer Fogy I, Stratowa C;
XX
PR   WPI; DWS-91-067/43

DR   P-PSDB; AAR07449.
XX
PT   DNA encoding TNF binding protein and TNF-receptor - used in
PT   tumour treatment and to understand mechanismsm to TNF action
XX
PS   Disclosure: Fig 1(1-3); 51pp; German.
XX
CC   pTNF-BP15 is one of 80 positives clones in a screened cDNA library
CC   from induced TNF-induced fibrosarcoma cells. A TNF-BP had been
CC   isolated from the urine of patients with uraemia and probes/primers
CC   were constructed from the determined amino acid sequence
CC   To produce a vector expressing a soluble form of TNF-binding
CC   protein, this plasmid was cut with XmnI, amplified by PCR and the
CC   amplified DNA cut with BamHI and EcoRI.
CC   The resulting 0.75 kb DNA fragment was inserted into pT7/T3 alpha-19
CC   (BRL) cut with the same enzymes to recover pTNF-BP. This was cut
CC   with BamHI and EcoRI, and the recovered fragment inserted into
CC   pAD-2MV1 (AAQ06283) to give the required plasmid pADTNF-BP.
CC   See also AAQ06282-Q06285.
XX
SQ   Sequence 1334 BP; 299 A; 409 C; 342 G; 284 T; 0 other;

Query Match: 92.8%;   Score 557;   DB 1;   Length 1334;
Host Local Similarity   94.8%;   Prod. No. 1.4e-157;
Matches   600;   Conservative   0;   Mismatches   0;   Indels   33;   Gaps   1;

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Qy   61 gggaatataccccctcagggggtttattg-------------------------ga   87
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Db   273 gggaatataccccctcagggggttattlggactgtccctcaccctagggggatcaggggggagagaga 332

Qy   88 gatagtgtgtgtcccaaggaaaatatatccacoctcaaaataattcgattcgtgtacc 147
           ||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   333 gatagtgtgtgtcccaaggaaaatatatcgacoctcaaaataattcgattcgtgtacc 392

Qy   148 aagtgcacaaaggaaacctactgtacaatgactgtccaagcccgggcaggatacggac 207
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Db   393 aagtgccacaaaggaacctactgttacaatgactgtccaggcccgggcaggatacggac 452

Qy   208 tgcagtgggtgtgagagcagcggccttcaccgcttcacgggacactgatt 267
           |||||||||||||||||||||||||||||||||||||||
Db   453 tgcagggagtgtgagagcagcggccttcaccgcttcacgtcacactgatt 512

Qy   268 agctgttccaaatgctaaagtaaatggtcaggtggaaatctcttgcacagtggac 327
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Db   513 agctgttccaaatgccaaagtaaatggtcaggtggaaatctcttgcacagtggac 572

Qy   328 caggtagtatatgtggctcaggaggacaggtaccgacacattcttggtgggtgaaaacctt 387
           ||||||||||||||||||||||||||||||||||||||||||||
Db   573 caggtagtatatgtggctcaggaggagaacagtaccgacacattattggtgggtgaaaacctt 632

Qy   388 ttccagtgttcaattgcacgcctctccaattgggaccgtgcacctctcctgccaggag 447
           |||||||||||||||||||||||||||||||||||||||||||
Db   633 ttccagtgttcaattgctcaattgcacgcctctccaattgggacctcctgccaggag 692

Qy   448 aaacagaacaccgtgcacctgcacctgccatgcaggttctttctaagagaaaacgagtgtgtc 507
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Db   693 aaacagaacaccgtgcacctgcacctgcatgcaggttctttctaagagaaaacgagtgtgtc 752

Qy   508 tcctgtagtaactgtaagaagaaagcctagagtaggtqcctacccccagattgag 567
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Db   753 tcctgtagtaactgtaagaagaaagcctgaatgtgcctacccccagattgag 812

Qy   568 aatgttaaggcactgaggactcagacaccaca 600
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Db   813 aatgttaaggcactgaggactcagacaccaca 845

RESULT   2

AAQ49932
ID   AAQ49932 standard; cDNA to mRNA, 1368 BP.
XX
AC   AAQ49932;
XX
DT   29-APR-1994 (first entry)
XX
DE   Lambda-derived TNF-R cDNA.
XX
KW   Human; tumour necrosis factor receptor; TNF-R; interleukin-1 receptor;
KW   IL-1R; fusion protein; linker; TNF; IL-1; cachexia; cerebral malaria;
KW   rheumatoid arthritis; diabetes; multiple sclerosis; septic shock;
KW   pulmonary fibrosis; silicosis; allograft, xenograft, rejection;
KW   graft verses host disease; sepsis; inflammation, allergy;
KW   autoimmune dysfunction; ss.
XX
OS   Homo sapiens.
OS   Lambda-gt10-7-ctnfbp.
XX
FH   Key   Location/Qualifiers
FT   CDS   1..1366
FT   /tag= a
FT   /product= hTNF-R
FT   sig-peptide   1..120
FT   /tag= b
FT   mat-peptide   121..1363
FT   /tag= c
XX
PN   WO9319777-A.
XX
PD   14-OCT-1993.
XX
PF   26-MAR-1993; 93WO-US02938.
XX
PR   30-MAR-1992; 92US-0860710.
XX
PA   (IMMV) IMMUNEX CORP.
XX
PI   Smith CA;
XX
DR   WPI; 1993-336592/42.
DR   P-PSDB; AAR42059.
XX
PT   New fusion protein tumour necrosis factor and human interleukin-1
PT   receptor - useful in therapy, diagnosis and assays of e.g.
PT   rheumatoid arthritis, diabetes, cerebral malaria, sepsis, etc.
XX
PS   Disclosure; Page 57 53, 85pp; English.
XX
CC   The sequences given in AAQ49931-32 encode human tumour necrosis factor
CC   receptor (TNF-R) and the sequences in AAQ49933-34 encode human
CC   interleukin-1 receptor (IL-1R). These sequences were used in the
CC   production of a fusion protein which conformed to one of the
CC   formulae:
CC   TNF-R-linker-TNF-R-linker-IL-1R
CC   IL-1R-linker-TNF-R-linker-TNF-R or
CC   TNF-R-linker-TNF-R
CC   The linker may comprise 5-100 amino acids selected from Gly, Asp,
CC   Ser, Thr and Ala. These linkers separate the individual moieties
CC   by such a distance that each component of the fusion protein is
CC   capable of folding into the secondary or tertiary structure required
CC   for its biological activity. These fusion proteins may be used in
CC   therapy, diagnosis and assays for conditions mediated by TNF or IL-1,
CC   particularly in conditions in which both TNF and IL-1 play a causitive
CC   role. They may be used to treat cachexia, rheumatoid arthritis,
CC   diabetes, multiple sclerosis, pulmonary fibrosis and silicosis,
CC   cerebral malaria, allograft and xenograft rejection in graft verses
CC   host disease, sepsis, septic shock, inflammation, allergies and
CC   autoimmune dysfunctions.
XX
SQ   Sequence 1368 BP; 292 A; 424 C; 376 G; 276 T; 0 other;

Query Match   92.6%; Score 555.4; DB 14; Length 1368;
Best Local Similarity   94.6%; Pred. No. 4.1e-157;
Matches 599; Conservative   0; Mismatches 1; Indels 33; Gaps 1;

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Qy  148 aaqtqccacaaqqaacct-a--tqtacaatqactqt-qtcaqqcccqqqqcaqqatacqqac  207
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Qy  208 tqcaqqqaqtqtqaqaqcqtqtcctcaccqcttcaqaaaacCacctcaqacactqcctc  267
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Qy  268 qactactcaqaatccqaaaqcaaataaqtcaqqtqaqqatctctcaltqcacaaqtqqac  327
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Qy  508 tcctqtaqtaactqtaaqaaaqcctqaqtqcacqaaqtqtqtqctacccaqattqaq  567
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Qy  568 aatqttaaqqqcactqaqqacctqaqqacccaca  600
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Db  601 aatqttaaqqqcactqaqqacctqaqqacccaca  633
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RESULT 3
AAA95105

ID AAA95105 standard; DNA; 1368 BP.
XX
AC AAA95105;
XX
DT 12-JAN-2001 (first entry)
XX
DE Human TNFR1 coding sequence.
XX
KW TNFR1; tumour necrosis factor receptor; polymorphism; human;
KW tumour; cancer; apoptosis; bacterial infection; ds.
XX
OS Homo sapiens.
XX
FH Key   Location/Qualifiers
FH
FT CDS   1..1368
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FT exon   1..39
FT   /*tag= b
FT   /number-1
FT variation   replace(36,G)
FT   /*tag= c

FT exon   40..174
FT   /*tag= d
FT   /number-2
FT exon   194..422
FT   /*tag= e
FT   /number- 4
FT variation   replace(224,T)
FT   /*tag= f
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FT   /*tag= g
FT exon   423..472
FT   /*tag= h
FT   /number-4
FT variation   replace(362,A)
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FT variation   replace(404,C)
FT   /*tag- j
FT exon   474..551
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FT   /*tag- l
FT   /number- 6
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FT exon   740..758
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FT   /*tag- p
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IK W02000504416-A1.
XX
PD 31-AUG-2000
XX
PF 23-FEB-2000; 2000W0-US04406.
XX
PR 25-FEB-1999; 9908-0121414.
XX
PA (GINA) GINAiSSANCE PHARM INC.
PA (NANI/) NANIABALAN K.
PA (SCHU/) SCHULZ V.P.
PA (STEP/) STEPHENS J.C.
PA (CHEW) CHEW A.
XX
PI Nandabalan K, Schulz VP, Stephens JC, Chew A;
XX
DR WPI; 2000-541403/49.
DR P-PSDB; AAB24446.
XX
FT Polynucleotides comprising polymorphic variants of the tumour
FT necrosis factor receptor 1 (TNFR1) gene. The present invention relates to polymorphic variants of the tumour
Ps Claim 7; Fig 4; 7pp; English. necrosis factor receptor 1 (TNFR1) gene. The present sequence is
XX   the coding sequence of the TNFR1 gene. The sequence of the whole gene is
CC The present invention relates to polymorphic variants of the tumour   given in AAA95102, AAA95103 and AAA95104. The polymorphisms were
CC necrosis factor receptor 1 (TNFR1) gene. The present sequence is   identified by amplifying and sequencing regions of the gene. Twelve
CC the coding sequence of the TNFR1 gene. The sequence of the whole gene is polymorphic loci were discovered. Of these twelve polymorphisms, four can
CC given in AAA95102, AAA95103 and AAA95104. The polymorphisms were   cause a change in the TNFR1 protein. The TNFR1 polymorphisms may be
CC identified by amplifying and sequencing regions of the gene. Twelve   useful for studying the biological function of TNFR1 as well as for
CC polymorphic loci were discovered. Of these twelve polymorphisms, four can identifying drugs targeting the protein for treatment of disorders
CC cause a change in the TNFR1 protein. The TNFR1 polymorphisms may be   related to its abnormal expression of function such as tumours,
CC useful for studying the biological function of TNFR1 as well as for   apoptosis related disorders and bacterial infection.
CC identifying drugs targeting the protein for treatment of disorders
CC related to its abnormal expression of function such as tumours,
CC apoptosis related disorders and bacterial infection.

XX
SQ   Sequence 1268 BP; 292 A; 424 C; 426 G; 236 T; 0 other;

Query Match   92.6%; Score 555.4; DB 21; Length 1268;
Best Local Similarity 94.6%; Pred No. 4 1e-157;
Matches 599; Conservative 0; Mismatches 0; Indels 33; Gaps 1;

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Qy   61 ggaatataccctcaggggttattg------------------qa 87
         |||||||||||||||||                      ||
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Qy   88 gatagtgtgtcccaaggaaaatatatccacctcaaaataattcgattcgtgtacc 147
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Db  601 aatgttaggagaccactgaggactcaggcaccaca 633
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RESULT 4

AAQ20973

ID   AAQ20973 standard; DNA; 2062 BP.
XX
AC   AAQ20973;
XX
DT   11-MAY-1992 (first entry)
XX
DE   TNF-alpha binding protein gene.
XX
KW   Tumour necrosis factor alpha, autoimmune diseases; cachectin, ss;
KW   extracellular domain.
XX
OS   Homo sapiens.
XX
FH   Key   Location/Qualifiers
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FT   misc_feature 473..532
FT   /*tag= c
FT   /note= "homologous to probe AAQ20974"
FT   misc_feature 242..751
FT   /*tag= e
FT   /note= "encodes the extracellular domain of human
FT   TNF alpha receptor"
XX
PN   CH246569-A.
XX
PD   05-FEB-1992.
XX
Pt   15-JUN-1990;   90GH-0013410.
XX
PK   15-JUN-1990;   90GH-0013410.
XX
PA   (CHAP-) CHARING CROSS SUNLE
XX
PI   Feldman M, Gray P, Turner M, Brennan F;
XX
DR   WPI; 1992-043613/06.
DR   P-PSDB: AAR20787.
XX
PT   New tumour necrosis factor alpha binding protein and polypeptide
PT   - useful in treating cachexia, sepsis and auto immune diseases
PT   e.g. rheumatoid arthritis
XX
PS   Disclosure; Fig 1; 25pp; English.
XX
CC   The sequence is that of DNA encoding tumour necrosis factor alpha
CC   binding protein, which was obtd. from a human placental cDNA library
CC   in lambda gt11 using a probe (AAQ20974). The DNA also encodes the
CC   extracellular domain of human TNF alpha receptor and as such it is
CC   useful for treating diseases where TNF alpha is involved as a
CC   causative agent, e.g cachexia, sepsis and autoimmune diseases,
CC   specifically rheumatoid arthritis. See also AAQ20974.
XX
SQ   Sequence 2062 BP; 429 A; 616 C; 573 G; 444 T; 0 other;

Query Match   92.6%; Score 555.4; DB 11; Length 2062;
Best Local Similarity 94.6%; Pred No. 5e 157;
Matches 599; Conservative 0; Mismatches 0; Indels 33; Gaps 1;

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Qy    1 atggcctctccactgtacctgacctgctgctcctggagctgttggtg 60
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Db  155 atggcctctccactcaccgtacctgacctgctgctcctggagctgttggtg 214

Qy   61 ggaatataccctcaggggttattg------------------qa 87
         |||||||||||||||||                      ||
Db  215 ggaatataccctcaggggttattgggactggactggtctctacctaggggacaggagaagagaga 274

Qy   88 gatagtgtgtcccaaggaaaatatatccacctcaaaataattcgattcgtgtacc 147
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Db  275 gatagtgtgtcccaaggaaaatatatccacctcaaaataattcgattcgtgtacc 334

Qy  148 aagtgcccacaaaagaacctacttgtacaatgactgtgtccagggaaaaaccacctcagacaactggac 207
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Db  335 aagtgcccacaaaagaacctactgtacaatgactgtgtccagggaaaaccacctcagacaactggac 394

Qy  208 tgcaggagtgtgagagcgggctccttcaccggttccaccggttcaccgaacactgcctc 267
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Db  395 tgcaggagtgtgagagcggctccttcaccgcttcaccactcgcctc 454

Qy  268 aagtgctccaaatgccaaagagataggcagaaatggggtcaggatcttctctcttgttcacaatggac 327
         ||||||||||||||||||||||||||||||||||||
Db  455 aagtgctccaaatgccaaagagataggcagaaatggggtcaggatcttctctcttgttcacaatggac 514

Qy  328 cggdacaccgtgtgctgcaggaaaccagtaccggcattattggagtgaaaccctt 387
         |||||||||||||||||||||||||||||||||||||
Db  515 cggdacaccgtgtgctgcaggaaaccagtaccggcattattggagtgaaaccctt 574
```

PS   Claim 4; Fig 1; 43pp; English.
XX
CC   This sequence encodes human TNF-alpha 55kD receptor. A placenta cDNA
CC   library in gt10 was screened with probe AAQ24244 Ten hybridising clones
CC   were plaque purified and cDNA size determined by PAGE against an
CC   EcoRI digested phage DNA. The inserts of two cDNA clones were then
CC   sequenced, the coding region of the majority of the human TNF alpha
CC   55kD receptor was isolated as an EcoRI fragment encoding 474 amino
CC   acids, and cloned into a mammalian cell expression vector resulting
CC   in pTNFR. A derivative of the TNF-alpha receptor was produced by
CC   engineering a termination codon just prior to the transmembrane
CC   domain. PCR with primers AAQ24237.8 generated a 300bp
CC   restriction fragment which was cloned into pTNFR, giving pTNFRsol.
CC   DNA sequencing confirmed this contained the designed DNA sequence.
CC   The TNF-alpha receptor expression plasmids were then transfected
CC   into monkey COS-7 cells.
CC   See also AAQ24440 51, AAE24090, AAE24090 84, AAE27585, AAQ24246-8
XX
SQ   Sequence 2062 BP; 429 A; 418 C; 572 G; 443 T; 0 other;

Query Match   92.4%; Score 555.4; DB 17; Length 2062;
Best Local Similarity 94.6%;   Pred. No. 5e-177;
Matches 559; Conservative 0; Mismatches 32; Indels 11; Gaps 1;

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Db   155 atggacctctcagacctggtagccactgtcctctggaactcttgtattgata 214

Qy   61 ggaatatctcctcagagttattatt-----------------------ga   87
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Db   215 ggaatatctcctcagagttattatttggatggatttgacatttaagaaga 274

Qy   88 aatactatgtatcccagaaaatactagctgaatgcctattttccatcct   147
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Db   275 aatactatgtatcccagaaaatactagctgaatgcctattttccatcct   434

Qy   119 aattacaaaagaaattatgttaacatacattttccatccataccagac   207
          |||||||||||||||||||||||||||||||||||||||||||||||||
Db   435 aattacaaaagaaattatgttaacatacattttccatccataccagac   494

Qy   209 tgaggatgttctacaaatgtttccaaacaccatttttccctcctctc   267
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Db   345 tgaggatgttctacaaatgtttccaaacaccatttttccctcctctc   454

Qy   268 agacgttactaaaatattcaagtatttggatttagacaaacct   227
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Db   455 agacgttactaaaatattcaagtatttggatttagacaaacct   514

Qy   428 cagacacccttgtgtgtcagagaaaggaccatttttcatttaaaacctt   487
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Db   515 cagacacccttgtgtgtcagagaaaggaccatttttcatttaaaacctt   574

Qy   388 ttccagtgtttcattgagcattctgcctcaatggcacctctctgcctgccaggag   447
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Db   575 ttccagtgcttcaattgaagccctctccaatggcaggactctctgccttgccaggag   634

Qy   448 aaacagacaccgtgtgtccatgccagtttcctaagagaaaacgagtgtgtc   507
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Db   635 aaacagacaccgtgtgtccatgccagttcctaagagaaaacgagtgtgtc   694

Qy   508 tcctgtagtacttaacttgagggacacagagttatgtgctactcccagattgaa   567
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   695 tcctgtagtacttaacttgagggacacagagttgctactcccccagattgaa   754

Qy   568 aatgttaagagcactgagactgaggaccacca   600
          ||||||||||||||||||||||||||||||||
Db   755 aatgttaagagcactgagactgaggaccaca   787

RESULT 5
AAQ10883
ID   AAQ10883 standard; DNA; 2088 BP.

RESULT 5
AAQ24440
ID   AAQ24440 standard; DNA; 2062 BP.
XX
AC   AAQ24440;
XX
DT   05-Nov-1992 (first entry)
XX
DE   Encodes TNF-alpha 55kD receptor.
XX
KW   tumour necrosis factor alpha; extracellular binding domain;
KW   treatment; pulmonary diseases; septic shock; HIV infection; AIDS;
KW   malaria; viral meningitis; graft versus host disease;
KW   autoimmune disease; rheumatoid arthritis
XX
OS   Homo sapiens.
XX
FH   Key   Location/Qualifiers
FT   CDS   156..1517
FT   /*tag= a
FT   mat_peptide   1265..1267
FT   /product= human TNF-alpha
FT   /*tag= b
FT   /note= "M"
FT   mat_peptide   1265..1267
FT   /*tag= c
FT   /codon- seq="TGG", aa:Thr
FT   mat_peptide   1259..1260
FT   /*tag= d
FT   /codon- seq"AAG", aa:Leu
FT   mat_peptide   1433..1435
FT   /*tag= e
FT   /codon- seq="GAC", aa:Asn
FT   sig_peptide   156..274
FT   /*tag= 1
XX
DR   WO9207076 A.
XX
PN   30-APR-1992.
XX
PF   18-OCT-1991; 91WO-GB01826.
XX
PR   18-OCT-1990; 90GB-0022648.
XX
PA   (CHAR-) CHARING CROSS SUNLEY RES CENT.
XX
PI   Brennan FM, Feldmann M, Gray PW, Turner MJC;
XX
DR   WPI; 1992-167156/20.
DR   P-PSDB; AAR24090.
XX
PT   New polypeptide capable of binding human TNF alpha - comprises
PT   first three cysteine-rich subdomains of TNF alpha receptor for
PI   treating autoimmune disease, septic shock, HIV etc.
XX

```
XX
AC   AAQ10883;
XX
DT   13-MAY-1991  (first entry)
XX
DE   30kD TNF inhibitor precursor gene in lambda-gt10-7-tnfbp.
XX
KW   Tumour necrosis factor; inhibitor; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   CDS             171..1536
FT                   /*tag=  a
XX
PN   AU9058976-A.
XX
PD   24-JAN-1991.
XX
PF   16-JUL-1990;  9UAU-0058976.
XX
PR   07-FEB-1990;  900S-0479661.
PR   18-JUL-1989;  89US-0381080.
PR   11-DEC-1989;  89US-0450429.
XX
PA   (SYNE-) SYNERGEN INC.
XX
DR   WPI; 1991-073847/11.
DR   P-PSDB; AAP10986.
XX
PT   Tumour necrosis factor inhibitor  for suppression of TNF-alpha
PT   and -beta, useful as therapeutic agent.
XX
PS   Disclosure, Fig 21, 142pp; English.
XX
CC   The sequence encodes the entire 30 kD TNF inhibitor. The clone from
CC   which the sequence was obtd. was isolated from a cDNA library
CC   prepd. from RNA form U937 cells treated with PMA/PHA.   The whole
CC   gene can be inserted into expression vectors for prepn. of TNF
CC   inhibitor for use in the treatment of inflammatory and degenerative
CC   diseases.
CC   See also AAQ10878, AAQ10884 and AAQ10907.
XX
SQ   Sequence 2088 BP; 439 A; 626 C; 578 G; 445 T; 0 other;

Query Match             92.6%;  Score  555.4;  DB 12;  Length 2088;
Best Local Similarity   94.68%;  Pred. No. 5e-157;
Matches   499;  Conservative   0;  Mismatches   0;  Indels   33;  Gaps   1;

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Db        169 atgggcctctccacgacctgctgctgcctggttcctggagctgttgccggtg      228

Qy         61 gtaatataccctcaggtttg------------------------------ga       87
              |||||||||||||||||||||                              ||
Db        229 gtaatataccctcaggggttgattggacttgtcctccctagggacagggagagagag  288

Qy         88 gatgatgtatcccaggaaaaatataccgcctcaaaataatccgattgctgtacc      147
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        289 gatagtgtgtgtcccaaggaaaaatatatcaccctcaaaataattcgattcgtgtacc  348

Qy        148 gatgcacaaaggaacctactgacactgactggtccagcggggcaggagatacggac      207
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Db        349 gatgcccaaaggaacctact cgtacgactggtccaggggcaggatacggac      408

Qy        208 tgcaaagaatgtggaatccctggcgttcaaaaaaaccacctcagacacttgcctc      267
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        409 tgcaaggaatgtgaagacgggctccacgcttcaaaaaaccagacacttgcctc      468

Qy        268 agctgctccaaatgccgaaagaaatgccgaaagggcaggtgaaatctcttctgcacagtggac  327
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        469 agctgctccaaatgccgaaagaaatgccgaaagtggagatctcttctcttgcacagtggac  528
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Qy        328 cgggacaccgtgtgtgctgcaggaggagaaccagtaccggcattattggagtgaaaacctt      387
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Db        529 cgggacaccgtgtgtgctgcaggaggagaaccagtaccggcattattggagtgaaaacctt      588

Qy        388 ttccagtgcttcaattgcagcctcgcctccatggaccgtgcacctctctgccaggag      447
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        589 ttccagtgcttcaattgcagcctcctcaattggaccgtgcacctctctgccaggag      648

Qy        448 aaacagaacaccgtgtgcacctgccatgcacagtttctctaagaagaaaacgagtgtgtc      507
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        649 aaacagaacaccgtgtgcacctgccatgcacagtttctctaagaagaaaacgagtgtgtc      708

Qy        508 tcctgtagtaagccaggaaaagcctggagtgcacgttgtgcctaccccagattgag      567
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        709 tcctgtaactgtaagaaaagccctggaactgcacgttgcctaccccagattgag      768

Qy        568 aatgttaaggcactgagggacttcaggcaccaca      600
              ||||||||||||||||||||||||||||||||||
Db        769 aatgttaaggcactgaggacttcaggcaccaca      801
```

```
RESULT   7
AC83946
ID   AC83946 standard; DNA; 2088 BP.
XX
AC   AAC83946;
XX
DT   02-MAR-2001  (first entry)
XX
DE   Human 30 kDa TNF inhibitor precursor coding sequence.
XX
KW   TNF inhibitor; antiinflammatory; Tumour Necrosis Factor; interleukin;
KW   IL-1, inflammatory disease, degenerative disease, human, ss.
XX
OS   Homo sapiens.
XX
PN   US6143866-A.
XX
PD   07-NOV-2000.
XX
PF   19-JAN-1995;  95US-0375242.
XX
PR   19-JUL-1990;  900S-0555274.
PR   09-JUL-1991;  91US-0000466.
PR   18-JUL-1989;  89US-0381080.
PR   11-DEC-1989;  89US-0450429.
PR   07-FEB-1990;  900S-0479661.
XX
PA   (AMGE-) AMGEN INC.
XX
PI   Squires C,  King MW,  Hale KK,  Brewer MT,  Thompson RC;
PI   Vanderslice RW,  Vannice J,  Kohno T;
XX
DR   WPI; 2001-006443/01.
DR   P-PSDB; AAB37677.
XX
PT   Novel 30 kDa tumor necrosis factor inhibitor analog comprising a
PT   non-native cysteine residue cross-linked with polyethylene glycol,
PT   useful for treating inflammatory and degenerative diseases mediated by
PT   TNF -
XX
PS   Example 6; Fig 21; 82pp; English.
XX
CC   The present invention relates to Tumour Necrosis Factor (TNF) inhibitors
CC   (see AAB37676 and AAB37685), which have TNF inhibitory activity, the
CC   novel TNF inhibitors of the present invention are useful as therapeutic
CC   agents for inhibiting the activity of TNF and interleukin (IL-1), and
CC   for treating inflammatory and degenerative diseases mediated by TNF. The
CC   present sequence is the coding sequence for the precursor of 30 kDa TNF
CC   inhibitor. The 30 kDa TNF inhibitor can inhibit TNF alpha.
XX
SQ   Sequence 2088 BP; 439 A; 626 C; 578 G; 445 T; 0 other;
```

Left column

Query Match   92.6%;   Score 555.1; DB 22; Length 2088;
Best Local Similarity   94.6%;   Pred. No 50-157;
Matches 549; Conservative 0; Mismatches 1; Indels 33; Gaps 1;

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Qy   61 ggaatatacccctcaggqttattg--------------------------ga   87
Db  229 gggatacccctcagggtta'tgactggtccctcaccdaggggacaggaggaggaga  288

Qy   88 gatagtgtgtgtcacacaagaaataaatatatccccaaataattcgattgctgtacc  147
Db  289 gatagtgtgtgtcacacaagaaaatatatccccaaataattcgattgctgtacc      348

Qy  148 aagtgccacaaaggaactactcacaatgactgtccaggcccaggqcacaggacacggac  207
Db  349 aagtgccacaaaggaactactcacaatgactgtccaggcccaggqcaggatacggac      408

Qy  208 tgcaggagtgtgagcgcggctccttcaccgcttcaggaaaccacctcagacactgcctc  267
Db  409 tgcaggagtgtgagcgcggctccttcaccgcttcaggaaaccacctcagacactgcctc      468

Qy  268 agctgctctcaaatgccgaaagtgatctggtggatctcttgcacagtggac          327
Db  469 agctgctctcaaatggccgaaagtgatctggtggatctcttgcacagtggac           528

Qy  328 caggaccgtatgtacccacccgacaggaccagtacccqcattggaattaaaacctt  387
Db  529 cgggaccgtatgtgctgcaggaggaacacaagtacccgcattggaattaaaacctt      588

Qy  388 ttccagtgcttcaattgcadgrctgcctcaatggacgtgcctcctcctccaggag  447
Db  589 ttccagtgcttcaattgcadgrctgcctcaatggacgtgcctcctcctccaggag      648

Qy  448 aaacagaacaccgtgtcaactgcatgactgcaggttttttaagagaaacagtgtgtg  507
Db  649 aaacagaacaccgtgtcaactgcatgactgcaggttttttaagagaaacagtgtgtc      708

Qy  508 tcctgtagtactgtaggaaaagctgaaaatacagaattgtactccccagattag  567
Db  709 tcctgtagtactgtaggaaaagctgaaaatacagaattgtactccccagattag      768

Qy  568 aatgttaaggcactgaggacctcagcacaca   690
Db  769 aatgttaaggcactgaggacctcagcacaca   801
```

RESULT 8
AAQ10955

ID   AAQ10955 standard; cDNA; 2111 BP.
XX
AC   AAQ10955;
XX
DT   24-MAY-1991 (first entry)
XX
DE   Encodes human 55kD TNF-binding protein.
XX
KW   Tumour Necrosis Factor; binding proteins; septic shock;
KW   autoimmune glomerulonephritis, lymphokine, cytokine.
XX
FH   Key   Location/Qualifiers
FT   sig_peptide   187..273
FT   /note= a
FT   mat_peptide   274..1551
FT   /note= b
FT   /product= 55kD TNF-BP
XX
PN   EP417563-A.
XX

Right column

PT   Insoluble tumour necrosis factor binding proteins and DNA
PT   encoding them, useful in pharmaceutical prods and for antibody
PT   prodn.
XX
PS   Claim 4; Fig 1; 26pp; German.
XX
CC   Partial amino acid sequences were determined for the 55 and 75kD
CC   TNF-BPs (see AAR11072-R11084) and oligonucleotide primers were
CC   synthesised based on these partial sequences. The primers were used
CC   to produce a cDNA fragment for use as aprobe to screen a human
CC   placental cDNA bank constructed in lambda gt11. Positive clones were
CC   identified and sequenced. DNA constructs comprising the TNF BP coding
CC   sequence may also contain a fragment of a human Ig domain.
CC   Recombinant constructs are used to transform cells to confer
CC   improved TNF binding properties.
CC   See also AAQ10956.
XX
SQ   Sequence 2111 BP; 445 A; 628 C; 588 G; 450 T; 0 other;

Query Match   92.6%;   Score 555.1; DB 22; Length 2111;
Best Local Similarity   94.6%;   Pred. No 50-157;
Matches 549; Conservative 0; Mismatches 0; Indels 33; Gaps 1;

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Qy   61 ggaatataccctcaggqttattg--------------------------ga   87
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Qy   88 gatagtgtgtgtcacacaagaaataaatatatccccaaataattcgattgctgtacc  147
Db  307 gatagtgtgtgtcacacaagaaaatatatccccaaataattcgattgctgtacc      366

Qy  148 aagtgccacaaaggaactactcacaatgactgtccaggcccaggqcacaggaggac  207
Db  367 aagtgccacaaaggaactactcacaatgactgtccaggcccaggqcaggatacggac      426

Qy  208 tgcaggagtgtgagcgcggctccttcaccgcttcaggaaaccacctcagacactgcctc  267
Db  427 tgcaggagtgtgagcgcggctccttcaccgcttcaggaaaccacctcagacactgcctc      484

Qy  268 agctgctctcaaatggccgaaagtgatctggtggatctcttgcacagtggaggagaagaga  327
Db  487 agctgctctcaaatggccgaaagtgatctggtggatctcttgcacagtggaggagaagaga  546

Qy  328 caggaccgtatgtacccacccgacaggaccagtacccqcattggaattaaaacctt   387
Db  547 cggga-ccgtatgtgctgcaggaggaacacaagtacccgcattggaattaaaacctt    666

Qy  388 ttccagtgcttcaattgcadgrctgcctcaatggacgtgcctcctcctccaggag   447
Db  607 ttccagtgcttcaattgcadgrctgcctcaatggacgtgcctcctcctccaggag       666

Qy  448 aaacagaacaccgtgtcaactgcatgactgcaggttttttaagagaaacagtgtgtc   507
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SQ   Sequence 2111 BP; 445 A, 629 C, 587 C, 450 T, 0 other,

Query Match   92.6%; Score 555.4; DB 20; Length 2111;
Best Local Similarity   94.6%; Pred. No. 5e-157;
Matches 599; Conservative   0; Mismatches 1; Indels 33; Gaps 1;

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Qy   61 ggaatataccctcagggggttattg------------------------qa   87
         |||||||||||||||||||||||| ||
Db   247 ggaatataccctcagggggttattggacttggtgtccctcacctaggggaccaggggagaacaqaqa 306

Qy   88 gataqtgtgtgtcccaagaaaatatatccacgotcaaaataattcgatttgctqtacc 147
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   307 gataqtgtgtgtcccaagaaaatatatccacgctcaaaataattcgatttgctgtacc 366

Qy   148 aagtgccaraaaggaacctacttgtacaatgatgtgtcaggccggggcaggatacggac 207
         |||||||||||||||||| ||||||||||||||||||||||||||||||||||||||||
Db   367 aagtgccacaaaggaacctactytacaatgatgtgtcaggccgggccaggatacggac 426

Qy   208 tgaggagatgtgagagcygctccttcacc^ttcagaaaactacctaqacactgc-to 257
         ||||||||||||||| |||||||||||||||||||||||||||||||||||||||||
Db   427 tgcaggagagtgtgagagcggcgtcctcaccgttcagaaaacctacctagacactgcctc 486

Qy   268 agcogctccaaatgccgaaaggaaatgggtcaatagaaatccaatagaaa 327
         |||||||||||||||||||||||||||||||||||||||||||||||||
Db   487 agctgctccaaatgccgaaaggaaatgggtcggatggtcagtgac 546

Qy   328 cgggacaccgtgtgctggcctgcaggaagaaccactaccqgcattattggagtgaaaaccctt 387
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Qy   388 ttccagtgcttcaattgcagcctgctgctcaatggacgtgcacctctgctgccaggag 447
         |||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   607 ttccagtgcttcaattgcagccctgctgctcaatggacgtgcacctctgctgccaggag 666

Qy   448 aaacagaacaccgtgtgacctgcaccqaccqtgcacctctctqqaqqaacgqatgtgtc 507
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   667 aaacagaacaccgtgtgacctgcccatgcagqtgtcttctaagaqaaaacgqattgttc 726

Qy   508 tcctgtagtaactgtaagaaaag-cttgagtqcacgaagttgctcatccagattaaq 567
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   727 tcctgtagtaactgtaagaaaaaccctggacttgctcataccaqattgag 786

Qy   568 aatgttaaggcactgagqactcaqgcaccaca 600
         ||||||||||||||||||||||||||||||||
Db   787 aatgttaaggcactgagqactcaggcaccaca 819

RESULT 10
AAZ48475
ID   AAZ48475 standard; DNA; 2161 BP.
XX
AC   AAZ48475;
XX
DT   31-MAR-2000 (first entry)
XX
DE   Human tumor necrosis factor receptor (TNFR1) nucleotide sequence.
XX
KW   Tumour necrosis factor receptor type 1; TNFR1; antisense; infection;
KW   inflammation; tumour formation; TNFR1; anticancer; ds.
XX
OS   Homo sapiens.
XX
PN   US6007995-A.
XX
PD   28-DEC-1999.
XX
PF   26-JUN-1998; 98US-0106038.
XX

Db   667 aacagaacaccgtgtgacctgcccatgcagqtgtcttctaagaqaaaacgqagtgtgtc 726
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qv   508 tcctqtaqtaact-qtaagaaaag^cgqaq^t^qqcr^qaaqttqct^acccaqattqag 567
         ||||||||||||||||||||||||||||||||||||||||||||||
Db   727 tcctgtagtaactgtaagaaaaaccctggacttgctcataccaqattgag 786

Qy   56 aatgttaaggcactgagqactcaggcaccaca 600
         ||||||||||||||||||||||||||||||||
Db   787 aatgttaaggcactgaggactcaggcaccaca 819

RESULT 9
AAZ09170
ID   AAZ09170 standard; cDNA; 2111 BP.
XX
AC   AAZ09170;
XX
DT   18-OCT-1999 (first entry)
XX
DE   Human tumour necrosis factor binding protein cDNA.
XX
KW   Tumour necrosis factor binding protein; TNF; insoluble protein; agonist;
KW   anti-inflammatory; antimalarial; treatment; septic shock; inflammation;
KW   autoimmune glomerulonephritis; cerebral malaria; immune response;
KW   antagonist; diagnosis; ds.
XX
OS   Homo sapiens.
XX
FH   Key   Location/Qualifiers
FT   CDS   187..1554
FT   /tag= a
FT   /product= "TNF binding protein"
FT   sig_peptide   187..273
FT   /*tag= b
FT   mat_peptide   274..1551
FT   /tag= c
XX
PN   EP939121-A2.
XX
PD   01-SEP-1999.
XX
PF   31-AUG-1999; 99EP-0116707.
XX
PR   20-APR-1990; 90CH-0001347.
PR   12-SEP-1989; 89CH-0003319.
PR   08-MAR-1990; 90CH-0000746.
XX
PA   (HOFF) HOFFMANN LA ROCHE & CO AG F.
XX
PI   Brockhaus M, Dembic Z, Gentz R, Lesslauer W, Loetscher H;
PI   Schlaeger E;
XX
DR   WPI; 1999-480840/41.
DR   P-PSDB; AAY30944.
XX
PT   New insoluble proteins, and fragments, that bind to tumor necrosis
PT   factor, used to treat e.g. septic shock or cerebral malaria
XX
PS   Claim 4; Fig 1; 25pp; German.
XX
CC   This invention describes novel homogeneous insoluble proteins (I),
CC   their (in)soluble fragments (Ia) and their salts that eq; bind tumour
CC   necrosis factor (TNF). The products of the invention have
CC   anti-inflammatory and antimalarial activity. (I) and (Ia) are used (i)
CC   to treat diseases in which TNF is involved (e.g. septic shock, autoimmune
CC   glomerulonephritis, cerebral malaria, immune responses and inflammation),
CC   (ii) to purify TNF, (iii) to identify TNF (ant)agonists and (iv) for
CC   diagnostic determination of TNF in body fluids. Antibodies raised against
CC   (I) are used for affinity purification of (I). This sequence encodes
CC   a 'tumour necrosis factor binding protein described in the method of
CC   the invention.
XX

```
PR   26-JUN-1998;   98US-0106048.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Baker BF; Cowsert LM;
XX
DR   WPI: 2000-105333/09
XX
PT   Antisense inhibition of tumor necrosis factor type 1 expression for
PT   diagnosis, treatment and prevention of disease, particularly tumors -
XX
PS   Example 10: Columns 33-36: 34pp; English.
XX
CC   The invention provides antisense compounds targeted to human tumour
CC   necrosis factor receptor type 1 (TNFR1) RNA. These antisense compounds
CC   can be used in a method of inhibiting the expression of TNFR1 human cells
CC   or tissues. The antisense compounds specifically hybridize with one or
CC   more nucleic acids encoding TNFR1 modulating the function of nucleic
CC   acid molecules encoding TNFR1, ultimately modulating the amount of TNFR1
CC   produced. the antisense compounds and method are useful as research
CC   reagents and diagnostics, and in the treatment and prophylaxis of
CC   infection, inflammation or tumour formation. The present sequence
CC   represents the nucleotide sequence of human TNFR1 (GenBank Accn No:
CC   X55313).
XX
SC   Sequence 2161 BP; 554 A, 612 C, 601 G, 354 T, 0 Other;

Query Match        92.8%;  Score 555.4;  DB 21;  Length 2161;
Best Local Similarity  94.6%;  Pred. No. 5.1e-157;
Matches 599;  Conservative  0;  Mismatches  0;  Indels 33;  Gaps 1;

Qy      1 atgggcctctccacgtgcctgacctgctgctgcccatcatgctcctgqagctattgqtg  60
            |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    256 atgggcctctccacgtgcctgacctgctgctgcccatcatgctcctggagctgttggtg  315

Qy     61 gggaatacccctcagggttatg------------------------------------ga  87
            ||||||||||||||||||||||                                     ||
Db    316 ggaatacccctcagggttatgtattga----tagggacagggaggaaaggaga  375

Qy     88 ggtttatttt..cccaggaagat tat cacccccaaatcatt cattgtgtaac  147
            |||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    376 gatagtgtgtcccccaggaaaatatatccacctcaaatattcgattgctgtacc  435

Qy    148 aactgccacaaggaccactta caaatactgccaaggccaggcaggatacggac  207
            |||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    436 aacgccacacaaggacctacttgtacaatgactgctcaggcccgggqcaggatacggac  495

Qy    209 tgcagggggttgagagtgggcttccaagtgttaagaaaacgacactggctggtgc  267
            ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    496 tgcagggggttgagagtgggcttcccttcacacgctcagaaaacacacctcagacactgcctc  555

Qy    268 aactgctccagaatgccagaaagaaatgcagggtcagggtcagaatctcttcttgcagtgqac  327
            ||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    556 agctgctccaaatgccgaaaaatgggtcaggtgaaatctcttcttgcacagtggac  615

Qy    328 cgggaaccgtgtgtgtcagggaagaaccagtacccgacatat gggtgaaaactt  387
            ||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    616 cgggacaccgtgtgtgactgtcaggagggaccagtaccggacattattgggtgaaaacctt  675

Qy    388 ttccagtacttcaattgcagcctccctcccttaatggacgtgcacctcttcctgccaggag  447
            ||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    676 ttccagtacttcaattgcagcctcctgccttaatggacgtgcacctcttcctgccaggag  735

Qy    448 aaacagaaaccatggaatt tcttctttttagagagaaaacgggatgtgtc  507
            ||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    736 aaacagaacaccgtgcacctgcacctgcacggtttcatgcacggtttctttgtaagagaggaacgggtgtgtc  795

Qy    508 tccttctcatgaatactgctgataaagactggtgtgtggttggcagattggg gggccaggattgqg  567
            ||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    796 tccttgtgtgaactgaaagccgggatgccacaatgctgctcccgaagatgaggq  855

Qy    568 aatgttaaggcactgaggactcagcagcaccaca  600
            ||||||||||||||||||||||||||||||||||||||||||||
Db    856 aatgttaaggcactgaggactcagcagcaccaca  888


RESULT 11
AAQ40513
ID   AAQ40513 standard; DNA; 2175 BP.
XX
AC   AAQ40513;
XX
DT   15-JAN-1996  (first entry)
XX
DE   p55 TNF-R gene.
XX
KW   p55, tumour necrosis factor receptor; TNF-R; human; murine; chimera;
KW   epidermal growth factor receptor; EGF-R; protease; inhibitor;
KW   phorbol myristate acetate; PMA; 55.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   CDS             256..1425
FT                   /*tag= a
FT                   /product= p55 TNF-R
FT   misc_signal     2141..2147,
FT                   /*tag= b
FT                   /note= "possible poly A signal"
XX
PN   AU947574Z-A.
XX
PD   04-MAY-1995.
XX
PF   11-OCT-1994;  94AU-00075742.
XX
PR   12-OCT-1993;  93IL-0107268.
XX
PA   (YEDA ) YEDA RES & DEV CO LTD.
XX
PI   Barkin M; Brakebusch C; Varfolomev E; Wallach D;
XX
PS   WPI: 1995-147442-25.
DR   P-PSDB; AAR75084.
XX
PT   New protease capable of cleaving soluble tumour necrosis factor
PT   (TNF) receptor from cell bound TNF receptor, useful for
PT   antagonising deleterious effects of TNF.
PS   Disclosure: Fig 3; 40pp; English.
XX
CC   This sequence represents human p55 tumour necrosis factor (TNF-R) DNA.
CC   Expression of this receptor is regulated by shedding of the
CC   extracellular receptor fragment.  The p55 TNF-R can be shed in response
CC   to different inducing agents, e.g. phorbol myristate acetate (PMA),
CC   depending on cell type.  the only region of the receptor whose structure
CC   affects the shedding response is the spacer region (seq AAR75012) in the
CC   extracellular domain.  This region is located close to a site of cleavage
CC   of the molecule, and links the CYS rich module to the transmembrane
CC   domain.  The spacer region of the encoded protein was used to create the
CC   chimeras between human p55 TNF-R and murine epidermal growth factor
CC   receptor (EGF-R) that are represented by AAR75007-11.  this spacer region
CC   was subjected to deletion mutations (AAR75013-25) and substitutions
CC   (AAR75024, 47) of the spacer region, the most important residues are
CC   Asn.172, Val 175, Asp 176, and Gln.177.  Val 173 being the most
CC   important of these.  The shedding of the receptor is independent of the
CC   side chain identity of these residues, with the exception of a limited
CC   dependence on the identity of Val 173.  Mutations which alter the
CC   conformation of the protein adversely affect the shedding process.  The
CC   mutations shown in AAR75013-47 were introduced in order to create an
CC   inhibitor of a protease that is capable of cleaving the soluble TNF-R
CC   from the cell bound TNF-R.  Fragments of these inhibitors can be seen in
CC   AAR75025-4, AAR75025, AAR75025 and AAR75025.  These protease
CC   inhibitors can be used for enhancing TNF function.
XX

Db    856 aatgttaaggcactgaggactcagcagcaccaca  888
```

XX
PR   05-AUG-1994;   94US-0286740.
XX
PA   (GETH) GENENTECH INC.
XX
PI   Crowley CW;
XX
DR   WPI; 1996-129407/13.
XX
PT   Improved process for the selection of recombinant host cells
PT   expressing high level of a desired product - uses eukaryotic host
PT   cells contg. a DNA construct comprising a selectable gene
XX
PS   Example 2; Page 36 42; 137pp; English
XX
CC   A dicistronic vector (AAT15930) comprises a regulatory region
CC   derived from the cytomegalovirus immediate-early gene, a
CC   selectable dihydrofolate reductase gene positioned within an
CC   intron having a 5' wild-type ras splice donor site, a downstream
CC   sequence coding for an immunoadhesin, TnFr IgG, capable of binding
CC   tumour necrosis factor, and a poly A sequence. Transfection of CHO
CC   LHFR- cells and subsequent methotroxate amplification and growth of
CC   the cells in nutrient-rich medium gave TnFr-IgG in yields of 9.5
CC   ug/ml (15-fold higher compared to conventional vector amplified
CC   pools).
SQ   Sequence 6889 BP; 1729 A; 1826 C; 1681 G; 1653 T; 0 other;

Query Match   92.68; Score 555.4; DB 17; Length 6889;
Best Local Similarity   94.68; Pred. No. 8.5e-157;
Matches 599; Conservative   0; Mismatches   1; Indels   33; Gaps   1;

Qy   1 atgggccctccaccgtgctgacctgctcctqgqactqttqgtq 60
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Db   1605 atgggccctccaccgtgctgacctgctcctggqactqttqgtq 1664

Qy   61 gqaatatacccctcaggqqttatta----------------qa 87
            ||||||||||||||||||||||| ||
Db   1665 gqaatataccccctcagqqqttattggacatggtggacaqqaqaqaqa 1724

Qy   88 gqtagtqtqtqtcccaagaaaatatatccacctcaaaataattcqatttqctqtacc 147
            ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1725 qatagtqtqtqtcccaagaaaatatatccacctcaaaataattcqatttqctqtacc 1784

Qy   148 aagtqccacaaagqaacctacttqtacaatqactqtccaqqcccqqcaqqatacqqac 207
            ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1785 aagtqccacaaagqaacctacttqtacaatqactqtccaqqcccqqqcaqqatacqqac 1844

Qy   208 tqcaqqqaqtqtqaqqacqcttcacccqqttcaccqqttcaqqaqacacactqcctc 267
            |||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1845 tqcaqqqaqtqtqaqqacqcttcacccqqttcaccqqttcaqqaqacacactqcctc 1904

Qy   268 aqctqtccaaatqcqaaagtqcqqaaatqqttcaqqtqqaqactctcttcttqcacaqtqgac 327
            |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1905 aqctqtccaaatqcqaaagtqcqqaaatqqttcaqqtqqaqactctcttcttqcacaqtqgac 1964

Qy   328 cqggacaccqtqtqtqqctqcaqqaqaaccaqtaccqqcattattqqaqtqaaaac.ctt 387
            ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1965 cqggacaccqtqtqtqqctqcaqqaqaaccaqtaccqqcattattqqaqtqaaaacctt 2024

Qy   388 ttccaqtqcttcaattqcaqccctcaqqqacctqcacacctctcctqccaqqaq 447
            |||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2025 ttccaqtqcttcaattqcaqccctcaqqqacctqcacacctctcctqccaqqaq 2084

Qy   448 aaacaqqaccacqtqtqacctqccatqcaqtqqttcttctcaaqqaqaaacaaqtqtqtc 507
            ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2085 aaacaqqaccacqtqtqacctqccatqcaqtqqttcttctcaaqqaqaaacaaqtqtqtc 2144

Qy   508 tcctqtaqtaactqtaaqaaaaqcctqqaqtqcacqaaqttqctqctaccccaqattqaq 567
            |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   2145 tcctqtaqtaactqtaaqaaaaqcctqqaqtqcacqaaqttqctqctaccccaqattqaq 2204

Qy   568 aatqttaaqqqcactqaqqactcaqqcaccaca 600

RESULT 12
AAT15941
ID   AAT15931 standard; DNA; 6889 BP.
XX
AC   AAT15941;
XX
DT   20 JUN 1996. (first entry)
XX
DE   DHFR/intron (WTrasSD)-TnFr-IgG dicistronic vector.
XX
KW   Recombinant host cell; dihydrofolate reductase; selectable marker;
KW   DHFR; ras splice donor; dicistronic vector; gene expression;
KW   immunoadhesin; TnFr-IgG; tumour necrosis factor; ds
XX
OS   Synthetic.
XX
PN   WO9604391-A1.
XX
PD   15-FEB-1996.
XX
PF   28 JUL 1995.   95WO-US09576

Db 2205 aatgt*ggcaca*tagac*tigacc3ga 2237
         |||||||||||||||||||||||||||||

RESULT 13
AAV04431
ID   AAV04431 standard; DNA; 6926 BP.
XX
AC   AAV04431;
XX
DT   27-APR-1998 (first entry)
XX
DE   Vector pcDNA3-IgG1-TNF-R.
XX
KW   murine; mouse; immunoglobulin G1; heavy chain; human; chimeric;
KW   Vector pcDNA3-IgG1-TNF-R; tumour necrosis factor receptor,
KW   screening; combinatorial library; CH2. CH3; hinge region; ss.
XX
OS   Chimeric - Mus sp.
OS   Chimeric - Homo sapiens
OS   Synthetic.
XX
PN   WO9737220-A1.
XX
PD   09-OCT-1997.
XX
PF   02-APR-1997; 97WO-US05821.
XX
PR   03-APR-1996; 96US-0627151.
XX
PA   (CHUG-) CHUGAI BIOPHARMACEUTICALS INC.
XX
PI   Hochorer KA, Brown SJ, Spinella DG;
XX
DR   WPI; 1997-503233/46.
XX
PT   Screening of compounds for ability to bind specific molecules -
PT   using a chimeric protein in which the specific molecule is fused to
PT   an immunoglobulin chain
XX
PS   Example 1; Pages 49-54; 80pp; English.
XX
CC   The present vector, which is designated pcDNA3-IgG1-TNF-R and
CC   contains nucleic acid sequences encoding mouse immunoglobulin G1
CC   (IgG1) CH2. CH3 and hinge regions and the human tumour necrosis
CC   factor receptor, was used in the development of a novel
CC   method of screening compounds for ability to bind a specific
CC   molecule. The method comprises contacting one or more compounds
CC   with a chimeric protein containing at least two domains, the 1st
CC   comprising a portion of the specific molecule, and the 2nd an
CC   immunoglobulin chain portion having one or more epitopes and/or
CC   immunoglobulin regions recognising an epitope. A binding partner
CC   complex between the chimeric protein and compound(s) is formed,
CC   separated out and contacted with a (indirectly labelled secondary
CC   molecule which binds the 2nd domain, and the label detected. Using
CC   the chimeric proteins, compounds can be rapidly screened for
CC   binding to an antigen, antibody, enzyme, enzyme substrate, receptor
CC   or ligand, e.g. in biomedical research and drug development. The
CC   method is especially intended for screening combinatorial
CC   libraries, but is also useful in screening bacterial/phage lysates,
CC   assays requiring specific binding partner interaction and obtaining
CC   binding analogues of a compound
XX
SQ   Sequence 6926 BP; 163H A; 1816 C; 1765 G; 1707 T; 0 other;

Query Match   93.6%; Score 655.4; DB 18; Length 6926;
Best Local Similarity   94.6%; Pred. No. 8.5e-157;
Matches 599; Conservative 0; Mismatches 33; Indels 33; Gaps 1;

Qy 1 atggggcctctgccagctctgctgctgctgctgtggctacaggtgctgacacggtggtg 60
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Db 935 atggggcctctgccagctctgctgctgctgctgtggctacaggtgctgacacggtggtg 994

Qy   (! aaaatatac ! tqaaiatatata
         |||||||||||||||||||||||||
Db 995 qgaatatatacc*tcagggqt*attgqa*tatacttqac*caqqtag aggqagaagaga 1054

Qy   89 aatagtgt*ttcccqcaataaaa*at*a*accc**aaa*at*aqaatt*qatt*aqataacc 147
         |||||||||||| |||||||||||||||||||||||||||||| ||||||||||||||||
Db 1055 aatagtgt*ttcccaaqqaaaa*at*a*accc**aaatataatt*cqatt*qctqtacc 1114

Qy 248 aagtgtca*aaqqaaa*tactqta*atqact*ctg*atqt*cta*aq*a*att*aqatac*qac 207
         ||||||||| |||||||||||||||||| ||||||||| ||||| || |||||||||||||
Db 1115 aagtgtca*aaqqaaa*tactqta*atqact*ctq*aat*qt*cta*aq*aqqqaqaqqata*cqac 1174

Qy 208 tqcaqqaqty qqqaacqa*t*c*t*accacteqaaatatt*a*aqacactq*a*tq*a 267
         |||||||||||||||||||| |||||| |||||||||||||| |||||||||||||||||
Db 1175 tqcaqqaqty qaqaqacqqa*tcct*acc*qt*qqaqqacacccarct*caqaca*t* qctc 1234

Qy 268 at ta*t*taac*at*t tt*a*t*a a*t*aa t*t tt*a*t*a 327
         |||||||||||||||||||||||||| |||||||||||||||||| || ||| |||
Db 1235 aa*qqacc*caq*qtqtqqct*cqqaqaaaac*qqtq*a*aaaaac*t*qatt*qqattqqaaaacctt 1294

Qy 328 cqqqacac*cq*qtqtqqct*cqqaqaaaac*cqtq*a*aaaaac*t*qatt*qqaaaacctt 387
         ||||||||||| ||||||||||||||||||||||||||||| |||||||| |||||||||||
Db 1295 cqqqacacacq*qtqtqqqct*cqaqaaaac*cqtq*aata*qqaa*cqqtq*qtq*aaaaac*ctt 1354

Qy 388 ttcaqtaqctt*caat*acaqctct*drv*tcaatdqaqar*qtqacacct*cctqtcaqqqaq 447
         ||||||||||| ||||||||| || |||||||||| |||||||||||||||||||| ||| |||
Db 1355 ttccaqtqctt*caatt*q*anctrt*qqt*qrvt*qctqqvtact*qtqqrvacc*ttqq*cqaaqqaq 1414

Qy 448 aaqa*qqqa*a*aqtgta*a*atacaat*a*ttqaat*at*aqqtt*cctcaaqa*aaaacaqqat*tqtqtc 507
         |||||||||||| ||||||| |||||||||||||||||||| |||||||||||||||||||
Db 1415 aaacaqqaacac*qtqtacac*qtqacqatt*ccaqqt*t*cctcaaqaaaaacaqqat*tqtqtc 1474

Qy 508 tct*t*qtaat*a*tqtaaaqaaqcct*t*a*tq*aqaqvcaat*q**tc*t*tctcacqa*ttaqq 567
         |||||||||||| ||||||||| || |||||||||| |||||||||||||| |||||||||
Db 1475 tctqtqtaat*qqt*tqtqtaqaaqaaqct*t*aqctacaqaqqt*qqt*aatct*qaqtcaaqq 1534

Qy 568 aatqttaaqaaattaaqaactcaqaccacca 600
         |||||||||||||||||||||||||||||||
Db 1535 aatqttaaqqqractqaqqactcaqqaccaca 1567

RESULT 14
AAQ12215
ID   AAQ12215 standard; DNA; 2176 BP.
XX
AC   AAQ12215;
XX
DT   12-SEP-1991 (first entry)
XX
DE   type 1 TNF receptor.
XX
KW   Tumour Necrosis Factor; TNF; binding protein; TNF R; ss.
XX
OS   Homo sapiens
XX
FH   Key   Location/Qualifiers
FT   terminator   244..246
FT   /*tag= a
FT   /note "in-frame termination codon"
FT   CDS   256..1620
FT   /*tag= a
FT   sig_peptide   256..318
FT   /product= type 1 TNF receptor
FT   /*tag= b
FT   mat_peptide   319..1620
FT   /*tag= c
FT   misc_RNA   419..864
FT   /*tag= d
FT   /label= soluble domain
FT   /note "is able to inhibit TNF binding"
FT   /note "longer"
FT   misc_feature   476..484

```
Db   376  ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy   148  aagtaccacaaggaacctacttatacaatgactgctccaggccaggccaggatacggac  207
Db   436  aagtgccaaaaggaactacttgtaccaatgactgctccaggccaggccaggatacggac  495
Qy   208  tgcagggagtgtgagagccggctcttcaccgttcagaaaaccacctcagacacttgcctc  267
Db   496  tgcagggagtgtgagagccggctcttcaccgttcagaaaaccacctcagacacttgcctc  555
Qy   268  agctgctccaaatgccgaaaggaaatggtcagtqagtagatctcttcttgcacagtggac  327
Db   556  agctgctccaaatgccgaaaggaaatggtcagtgagtagatctcttcttgcacagtggac  615
Qy   328  cggacaccatgtggctcagaqaaaaccaatacaacattattgaagtgaaaacctt       387
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RESULT 15
AAQ50870
ID   AAQ50870 standard; DNA; 2170 BP.
XX
AC   AAQ50870;
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DT   13-MAY-1994   (first entry)
XX
DE   p55 Tumour necrosis factor receptor coding sequence.
XX
KW   TNF; tumour necrosis factor; receptor; disease; autoimmunity;
KW   rheumatoid arthritis; graft rejection; graft vs host; septic shock;
KW   effector protein; ss.
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XX
FH   Key            Location/Qualifiers
FT   CDS            256..1623
FT                  /tag= a
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XX
PN   EP568925-A.
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PD   10-NOV-1993.
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PF   29-APR-1993;  93EP-0106981.
XX
PR   03-MAY-1992;  92IL-0101769.
XX
PA   (YEDA ) YEDA RES & DEV CO LTD.
XX
PI   Brakebusch C, Wallach D;
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DR   WPI; 1993-353057/45.
DR   P-PSDB; AAR42197.
XX
PT   Modulating activity of tumour necrosis factor receptor - using
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FT                  /number= 3
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FT                  /tag= l
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FT   polyA_signal   2145..2150
FT                  /tag= m
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PN   EP433900-A.
XX
PD   26-JUN-1991.
XX
PF   13-DEC-1990;  90EP-0124133.
XX
PR   12-JUL-1990;  90IL-0095064.
PR   13-DEC-1989;  89IL-0092697.
XX
PA   (YEDA ) YEDA RES & DEV CO LTD.
XX
PI   Wallach D, Nophar Y, Kemper O, Engelmann H, Brakebusch C;
PI   Aderka D;
XX
DR   WPI; 1991-186774/26.
DR   P-PSDB; AAR12550.
XX
PT   Recombinant tumour necrosis factor binding protein I - prepd. by
PT   transfecting eukaryotic cells with vector contg. deoxyribonucleic
PT   acid encoding human type I TNF receptor or soluble domain
XX
PS   Disclosure; Fig 1(1D); 30pp; English.
XX
CC   The Tumour Necrosis Factor Binding Protein I is the soluble form of
CC   type I TNF-receptor and constitutes a fragment of the cell surface
CC   form of this receptor, corresp. to its extracellular domain.
CC   There is no characteristic poly(A) addition signal near the 3' end
CC   of the cDNA. The sequence ACTAAA (tag m) may serve as an
CC   alternative to this signal, but with low efficiency.
CC   See also AAQ12212-15.
XX
SQ   Sequence 2176 BP; 475 A; 644 C; 602 G; 455 T; 0 other;
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Query Match             92.2%;  Score 553.8;  DB 12;  Length 2176;
Best Local Similarity   94.5%;  Pred. No. 1.5e-156;
Matches  500;  Conservative    0;  Mismatches    0;  Indels   33,  Gaps   1;

Qy    1  atgggctctccaccgtacctgacctgctqccactqgttcctqctqgaqctqttgqatq   60
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Qy   61  gggatatacccctcaggggttaltg------------------------------qa    87
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Qy   88  gtatqtqtqtcccaggaaaatatatccagcctccaaaataatatcgatttgctqtatacc  147
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Thu Apr 25 14:25:59 2002

us-09-525-998a-11.rng

PT   peptide(s), antibodies, etc. which interact with critical regions
PT   of receptor or effector protein, for controlling auto-immune
PT   disease, septic shock, etc.
XX
PS   Claim 2; Figure 1; 17pp; English.
XX
CC   Modification of the tumour necrosis factor receptor by mutation or
CC   deletion modulates signal transduction and/or cleavage effected by
CC   the receptor. This modulation of activity can also be achieved
CC   using effector proteins which interact with the TNF receptor.
CC   Molecules which interact with the TNF receptor or the effector
CC   proteins can be used to treat or prevent diseases associated with
CC   TNF activity e.g. autoimmune disease, rheumatoid arthritis, graft
CC   rejection; graft vs. host disease or septic shock. They can also
CC   be used to treat overdoses of exogenous TNF.
XX
SQ   Sequence 2170 BP; 474 A; 657 C; 584 G; 455 T; 0 other;

Query Match   92.0%;   Score 552.2; DB 14; Length 2170;
Best Local Similarity   94.8%;   Pred. No. 4.7e-156;
Matches 537;   Conservative   0;   Mismatches   3;   Indels   33,   Gaps   1;

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Qy   61 gtaaatataccctcagggttattg------------------ga 87
          |||||||||||||||||||||||| ||
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Qy   88 gataqtgtgtcccaaqaaaaatatatccacctcaaaataattttgatttgctgtacc 147
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Qy   148 aaqtqccaaqqaqcctacctgtacaatgactgtcsagcccqqgccaggataacggac 207
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Qy   208 tgcaqqqqqtgtgatatgtgctcttcascgcttcaqqaaaaccactcagacactgcctc 267
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Qy   268 aqctgtctccaaatgcccaaaqqaatqqqtcaqqtgaaaatctcttcttqcacaqtqqac 327
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